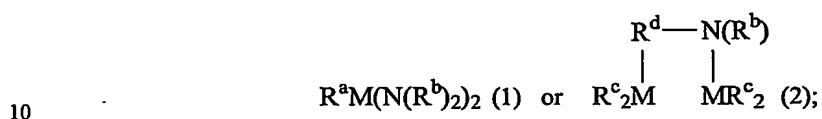


## CLAIMS:

1. A catalyst composition comprising:

- a) a transition metal complex capable of being activated for polymerization of  
 5 addition polymerizable monomers;  
 b) an activator compound able to render the transition metal complex catalytically  
 active for polymerization of addition polymerizable monomers; and  
 c) a Group 13 metal compound corresponding to the formula:



wherein,

M, independently each occurrence is a group 13 metal;

$R^a$  is a hydrocarbyl, halocarbyl, halohydrocarbyl, tri(hydrocarbyl)silyl, or  
 tri(hydrocarbyl)silyl- substituted hydrocarbyl radical of from 1 to 20 carbon, silicon or  
 15 mixtures of carbon and silicon atoms;

$R^b$  independently each occurrence is a  $C_{1-30}$  hydrocarbyl group;

$R^c$  independently each occurrence is selected from the group consisting of hydrogen,  
 $R^a$ ,  $-NR^b_2$ , and halo- or di( $C_{1-10}$  hydrocarbyl)amino- substituted hydrocarbyl groups, and  
 optionally one or more  $R^c$  groups may be shared by both metal centers, M, in the form of a  $\mu$ -  
 20 bridged structure; and

$R^d$ , is a divalent, anionic ligand group of up to 30 atoms, not counting hydrogen.

2. A catalyst composition according to claim 1 wherein the Group 13 component  
 corresponds to the formula  $R^1 Al(NR^2_2)_2$  wherein  $R^1$  is  $C_{1-4}$  alkyl, and  $R^2$  independently each  
 occurrence is  $C_{6-20}$  aryl, or to the formula:



wherein  $R^a$  is  $C_{1-4}$  alkyl,  $R^b$  is  $C_{6-20}$  aryl, and  $R^d$  is  $C_{6-20}$  arylene.

3. A catalyst composition according to claim 2 wherein the Group 13 component  
 is bis(ethylaluminum)-1-phenylene-2-(phenyl)amido  $\mu$ -bisdiphenylamide.

4. A catalyst composition according to claim 1 wherein the molar ratio of metal complex to component b) is from 1:1 to 1:50.
5. A catalyst composition according to claim 1 wherein the activating cocatalyst comprises trispentafluorophenylborane, N-methyl-N,N-diocetadecylammonium tetrakis(pentafluorophenyl)borate, or bis-C<sub>14-18</sub>alkyl methylammonium tetrakis(pentafluorophenyl)borate.
6. A process for polymerization of addition polymerizable monomers or mixtures thereof comprising contacting said monomer or mixture of monomers with a catalyst system comprising the catalyst composition of claim 1 under addition polymerization conditions.
7. The process of claim 6 wherein the addition polymerizable monomer is a C<sub>2-20</sub>  $\alpha$ -olefin or a mixture thereof.
8. The process of claim 7 wherein ethylene and styrene are copolymerized.